

Emendation of the specific name of the frog *Neobatrachus sudelli* (Lamb, 1911) (Anura: Myobatrachidae).

Memoirs of the Queensland Museum 56(1): 116-117. 2012.- Lamb (1911) described three species of frog, *Heleioporus sudelli*, *Hyla vinosa* and *Limnodynastes marmoratus*. All three species were rapidly synonymised with previously known species (*Heleioporus pictus* (Peters 1863), *Hyla lesueuri* Duméril & Bibron, 1841 and *Limnodynastes fletcheri* Boulenger, 1888, respectively) by Fry (1912). The latter two species have subsequently remained in synonymy. *Heleioporus sudelli* has had a more tortuous taxonomic history. Loveridge (1935) synonymised both *H. sudelli* and *H. pictus* with *H. eyrei* (Gray 1845), but later in the same account states that *pictus* is 'a full species'. Parker (1940), without examining the type material, separated the three again, treating *H. sudelli* as a distinct species, but expressed the opinion that it might be a species of *Limnodynastes*. Parker also suggested that *Heleioporus* might be divisible into two genera, with *Neobatrachus* representing the *pictus* group. Main (1957) and Main *et al.* (1958) formalised the latter suggestion, but did not treat *sudelli* as a distinct species. Similarly, Hosmer (1958) and Moore (1961), based on examination of type specimens in the Queensland Museum and the Australian Museum, continued to treat *H. sudelli* as a synonym of *Neobatrachus pictus*. However, Roberts (1978) resurrected *Neobatrachus sudelli*, based on differences in calls and the morphology of the skin in the groin. Subsequently, Mahony & Robinson (1980) reported that the two species differed karyologically, with *N. sudelli* being tetraploid and *N. pictus* diploid. Subsequent work (Mahony & Roberts 1986) determined that *N. centralis* (Parker 1940), *N. kuuapalari* Mahony & Roberts, 1986 and *N. aquilonius* Tyler *et al.*, 1981 were also tetraploid. The relationship between these four tetraploid species has been the subject of much recent attention, with analyses of genetics and call structure concluding that *N. sudelli*, *N. centralis* and central Australian populations previously ascribed to *N. aquilonius* belong to a single lineage (Mahony *et al.* 1996; Roberts 1997a,b; Mable & Roberts 1997). While these studies concurred in suggesting that *N. sudelli* and *N. centralis* might be synonymous, they did not formally synonymise the two species; Roberts (1997a) stated 'the status of *N. aquilonius* and *N. centralis* as possible synonyms of *N. sudelli* was not resolved'. However, in the absence of differentiation in call structure, allozymes or mitochondrial DNA sequence data, and with few morphological characters purported to distinguish the two species (Hosmer 1958; Cogger 2000; Anstis 2002), Roberts (2010) formally synonymised *N. centralis* with *N. sudelli*, and hence *N. sudelli* now has a distribution extending into all mainland states and territories.

Despite the previous attention to the species, no author appears to have noticed that Lamb (1911) clearly stated that the species was named after Miss J. Sudell of Warwick, Queensland, the collector of the types. A search of the

online Queensland Births Deaths and Marriages website reveals that only a single person with surname Sudell was born in Queensland between 1870 and 1911: Jane Ann Sudell, born in 1880 at Warwick to Henry Sudell and Emma Jane Lamb, who had married in 1879. Emma Jane Lamb (née Harrison) was the widow of Joseph Spurr Lamb (d. 1878), and the mother of Joseph Lamb (b. 1869), describer of *Neobatrachus sudelli*. Hence, Jane Ann Sudell was Joseph Lamb's younger half-sister.

As the species was named after a woman, the species name, a noun in the genitive case that is not of Latin origin, must have a feminine termination (Article 31.1.2, ICZN, 2000), and as there is, in the original publication, without recourse to external sources of information, evidence of an inadvertent error in the formation of the species name (Article 32.5.1) I formally emend *Neobatrachus sudelli* to *Neobatrachus sudellae*.

Literature Cited

- Anstis, M. 2002. Tadpoles of south-eastern Australia. A guide with keys. (Reed New Holland: Frenchs Forest).
- Boulenger, G.A. 1888. Descriptions of two new Australian frogs. *Annals and Magazine of Natural History* 6(2)(8): 142-143.
- Cogger, H.G. 2000. *Reptiles & Amphibians of Australia*. 6th Edition. (Reed New Holland: Frenchs Forest).
- Duméril, A.M.C. & Bibron, G. 1841. *Érpetologie Générale ou Histoire Naturelle Complète des Reptiles*. Vol. 8. (Librairie Encyclopedique de Rorêt: Paris)
- Fry, D.B. 1912. Description of *Austrochaperina*, a new genus of Engystomatidae from north Australia. *Records of the Australian Museum* 9(1): 87-106.
- Gray, J.E. 1841. Descriptions of some new Australian animals. Pp. 405-411. In, Eyre, E.J. *Journals of expeditions of discovery into Central Australia, and overland from Adelaide to King George's Sound in the years 1840-1; sent by the colonists of South Australia with the sanction and support of the Government including an account of the manners and customs of the aborigines and the state of their relations with Europeans*. (T. & W. Boone: London).
- Hosmer, W. 1958. A note on the identity of *Heleioporus sudelli* Lamb (Amphibia-Leptodactylidae). *North Queensland Naturalist* 121: 1-2.
- ICZN 2000. *International Code of Zoological Nomenclature*. 4th Edition. (International Trust for Zoological Nomenclature: London).
- Lamb, J. 1911. Description of three new batrachians from southern Queensland. *Annals of the Queensland Museum* 10: 26-28.
- Loveridge, A. 1935. Australian Amphibia in the Museum of Comparative Zoölogy, Cambridge, Massachusetts. *Bulletin of the Museum of Comparative Zoölogy* 78(1): 1-60 + plate.
- Mable, B.K. & Roberts, J.D. 1997. Mitochondrial DNA evolution of tetraploids in the genus *Neobatrachus* (Anura: Myobatrachidae). *Copeia* 1997(4): 680-689.
- Mahony, M.J., Donnellan, S.C. & Roberts, J.D. 1996. An allozyme electrophoretic analysis of relationships of diploid and tetraploid species of Australian desert frogs *Neobatrachus* (Anura: Myobatrachidae). *Australian Journal of Zoology* 44(6): 639-650.
- Mahony, M.J. & Robinson, E.S. 1980. Polyploidy in the Australian leptodactylid frog genus *Neobatrachus*. *Chromosoma* 81(2): 199-212.
- Mahony, M.J. & Roberts, J.D. 1986. Two new species of desert burrowing frogs of the genus *Neobatrachus* (Anura: Myobatrachidae) from Western Australia. *Records of the Western Australian Museum* 13(1): 155-170.
- Main, A.R. 1957. A new burrowing frog from Western Australia. *Western Australian Naturalist* 6(1): 23-24.

Neobatrachus sudelli (Lamb, 1911)

- Main, A.R., Lee, A.K. & Littlejohn, M.J. 1958. Evolution in three genera of Australian frogs. *Evolution* **12**(2): 224-233.
- Moore, J.A. 1961. The frogs of eastern New South Wales. *Bulletin of the American Museum of Natural History* **121**(3): 149-386.
- Parker, H.W. 1940. The Australasian frogs of the family Leptodactylidae. *Novitates Zoologicae* **42**(1): 1-106.
- Peters, W. 1863. Eine Übersicht der von Hrn. Richard Schomburgk an das zoologische Museum eingesandten Amphibien, aus Buchsfelde bei Adelaide in Südastralien. *Monatsberichte der Königlich Akademie der Wissenschaften zu Berlin* **1863**: 228-236.
- Roberts, J.D. 1978. Redefinition of the Australian leptodactylid frog *Neobatrachus pictus* Peters. *Transactions of the Royal Society of South Australia* **102**: 97-105.
- 1997a. Geographic variation in calls of males and determination of species boundaries in tetraploid frogs of the Australian genus *Neobatrachus* (Myobatrachidae). *Australian Journal of Zoology* **45**(2): 95-112.
- 1997b. Call evolution in *Neobatrachus* (Anura: Myobatrachidae): speculations on tetraploid origins. *Copeia* **1997**(4): 791-801.
2010. Taxonomic status of the Australian burrowing frogs *Neobatrachus sudelli*, *N. centralis* and *Neoruinosis* and clarification of the type specimen of *N. albipes*. *Records of the Western Australian Museum* **25**(4): 455-458.
- Tyler, M.J., Davies, M. & Martin, A.A. 1981. New and rediscovered species of frogs from the Derby-Broome area of Western Australia. *Records of the Western Australian Museum* **9**(2): 147-172.
- Glenn M. Shea, Faculty of Veterinary Science B01, University of Sydney 2006, and Australian Museum, 6 College St, Sydney 2000; 29 November 2011.